496 on the main lines. On side-lines the speed was about half as much. The distance between stations in Dnipro-Ukraine are far too great (10.8 km); in Carpatho-Ukraine and Galicia they are 4.2 and 3.7 respectively.

● 497 Travel is constantly increasing in Ukraine. In Dnipro-Ukraine the number of passengers rose from 49 millions in 1913 (5.3 mrd. passenger/km) to 60 millions in 1927/28 and to 200 millions in 1935 (11.6 mrd. passenger/km). Goods traffic increased from 95 million t (19.6 mrd. t/km) to 204 million t (51.4 mrd. t/km) in 1935. This increase of 300 % and 115 % respectively corresponded neither to the extension of the railroad net (23 %) nor to the increase in the means of transportation (engines 25 %, trucks 50 %) even if the traction power of the individual engine had greatly increased. (from 143 000 t in 1914 to 221 000 t in 1933).

3. Country Roads

491 In Dnipro-Ukraine there are mostly country-roads without side-ditches. They are not artificially built, and are often impassable in spring and autumn, and too dusty in summer so that they can only be used in winter. As they also form the approach to railway stations, they are responsible for gluts or shortages of railroad trucks: sugar factories, in particular, suffer from these circumstances during the beet harvest. Before the first World War there were only 2 770 km of paved highways (and 3 500 km of others). In Volynia and Podolia there were 13 or 15 meters respectively per sq. kilometer, in the districts round Kyiv and Chernyhiv, 5.6 meters each, while in France there were 1125 meters and in Germany 560 meters. Under the first Five-Year Plan serious attempts at improvements were made; the proportion of paved highways in the entire network of roads was to be raised from 2.3 % to 4.5 %. In reality the entire length of paved highways in 1935 amounted to 8 500 km. Northern Caucasia had 600 km of paved highways at this time. Things were much better in Galicia, which had 10 100 km of paved highways. After the First World War, however, Poland neglected road construction. In Carpatho-Ukraine, on the other hand, where there were 2 400 km of paved highways, the

9: Prothero G-4 (no date) 1920 RD1 Ukraine RD1

formerly belonging to the South-Eastern Railway, have been recently acquired by the State.

The money markets of Paris, London, and Amsterdam appear to be those principally interested in the loans of these railways; the financial circles of Berlin and Vienna are concerned in a lesser degree.

Up to the year 1889 railway rates in Russia were in a state of chaos. The Government then took the matter in hand, and during the years 1893–4 inaugurated a system which, with modifications, has remained in use. The zone method is applied to both goods and passengers, with a diminishing rate for each additional zone entered by the traffic. Cereal rates received special consideration, and differential tariffs exist for the carriage to Black Sea and Azov ports of cereals destined for export. Preferential rates are also granted on coal, iron and manganese intended for export.

Adequacy to Economic Needs: Possibilities of Expansion.—Taken as a whole, the railways of the Ukraine are not adequate to the needs of the country. In the Donets region railway extension by private enterprise has kept fairly level with industrial needs, and new projects were recently being actively promoted. In the agricultural portion of the country, however, the lack of railways is a serious handicap to all kinds of industry. The greater portion of the mileage is single line, and the rolling stock is of poor capacity and not kept in good repair.

A number of lines are under construction in the Donets basin to link up existing ones or to serve new mines recently opened, and a new line is being constructed to connect Yekaterinoslav with Kherson and Nikolaev by a direct route.

A projected line is the Podolian Railway, which would run from Shepetovka to Kamenets Podolsk, a distance of 149 miles. By another project a railway running due north from Jitomir *via* Mosir and Mohilev to Vitebsk would give a direct main line between Petrograd and Odessa, which does not at present exist, a detour *via* Kiev being necessary.

425 669 the cattle were burned. However, the glorious state did not last long. The farmers lacked seed, machines and draft animals in order to cultivate the land they so easily obtained. Besides, the men who came back from the war and the landless village farmers wanted to have a share in the booty. In the guberniyas of Kiyev and Khar'kov the government claimed the forests and the extensive beet fields. Civil wars, drought and epidemics carried off hundreds of thousands of peasant families during the years of the Bolshevist war. Thus ended the first chapter of the agrarian revolution, so eagerly awaited.

423 241 The New Economic Policy with its tolerance of a "bludgeoned private economy" constituted the second chapter. The peasants obtained their land and their farms on long leases; they could cultivate their land as they pleased, except that the farm could not be carelessly run, otherwise the management of the establishment could pass over into other hands. Nothing was gained by the fact that all the land belonged to the community. The "communal fields" were a Russian form of possession which had found favor at the time of Catherine II in the steppes and in the part of the Ukraine on the left bank of the river. Even though the farmer could not dispose of his land

•497 at any time like a free /Facing page 144/ /Map IX: Railroad Communications. The main lines of communication run in a north-south direction, whereas the east-west lines have always been neglected./ /Key: Number of daily passenger trains

423 241 in 1935./ /145/ estate owner, even though he was obliged to acquiesce to the fact that the entire community property was redistributed every 10 to 20 years, nevertheless, he could do as he pleased on his section of land. No less than 88.9% of peasant land in the Ukrainian steppes belonged to the communities, and in North Ukraine, 80.4%. The czars had condoned this form of ownership, because it simplified administration, facilitated

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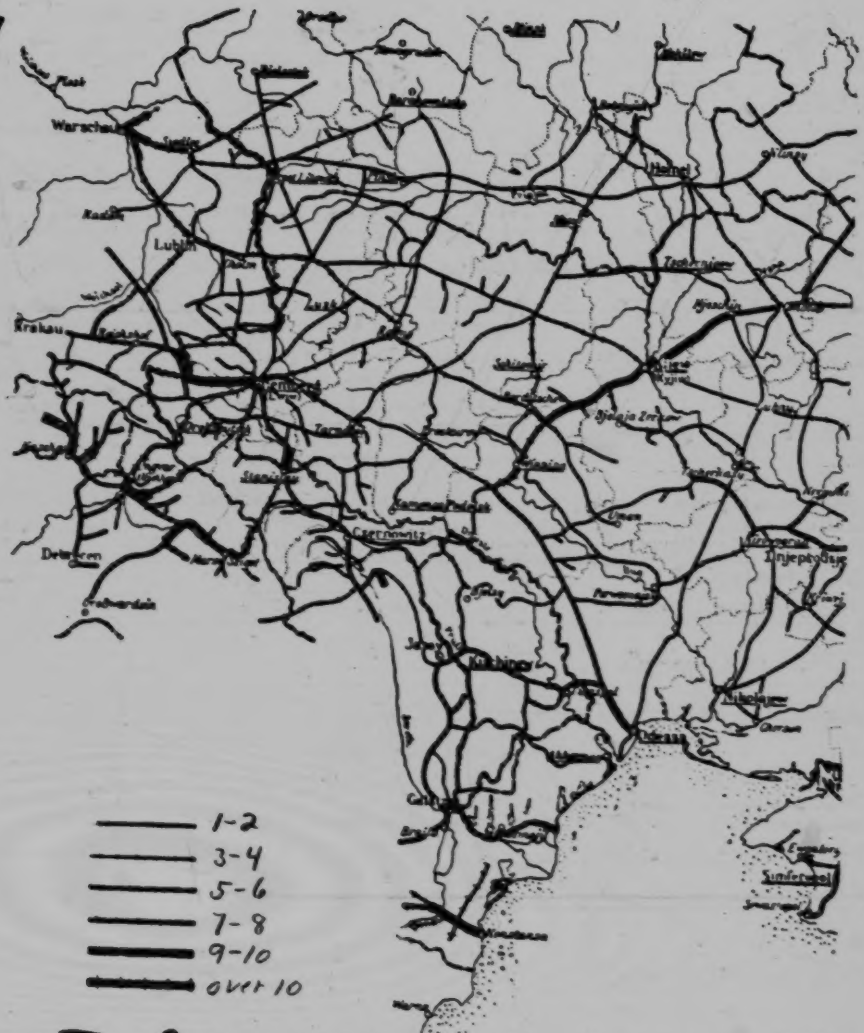

[Map IX: Railroad communications, cf. complete legend, p. 152]

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[Map IX: Railroad communications]

U 185 489 494 of road passengers should increase 7½ times; and the number of buses, by 3,000.

U 185 489 503 The Five-Year Plan also provides for the expansion of river and sea traffic. Small rivers are to be extensively adapted for navigation, and will also be utilized for local hydro-electric power supplies. Shipbuilding yards are to be rebuilt, and the tonnage of river and sea traffic is to be considerably increased. The freight turnover on small rivers of the Ukraine in 1950 is fixed by the Five-Year Plan at 450,000 metric tons.

Pre-War Traffic

U 489 In 1937 the Ukrainian railways handled 313.1 million metric tons of loads, as compared with 165.7 million in 1932. The river transport carried 7.7 million tons (4.7 million in 1932), while in the same year Ukrainian seaports handled 8.6 million tons as against 6.5 million tons in 1932.

SU 497 U 497 The U.S.S.R.'s system of rail transport is perhaps the weakest link in the Soviet economy. In 1937 the railway network of the entire Soviet Union amounted to only 86,400 kilometres (83,400 kilometres in 1933). The construction of additional lines had by no means kept pace with the expansion of industry and agriculture. The Ukraine in 1937 had some 14,400 kilometres of railway lines; and traffic loads in that year amounted to some 313.1 million metric tons. The inadequacy of the system if compared with other European countries is marked. For example, in France (the area of which was approximately equal to that of pre-war Ukraine) the length of the principal lines open for traffic on January 1, 1938, was 42,000 kilometres.

U 727 497 The war has greatly disrupted Ukrainian rail transport. Locomotives, rolling stock and tracks were heavily damaged or destroyed. The problem of rehabilitation is especially serious, because the lack of adequate transport facilities hinders other rebuilding projects. The locomotives and cars taken as reparations from Germany, being chiefly of narrow gauge, are consequently of no use on most existing Soviet tracks.

Production of Long Distance Locomotives

U 397 Before the war the output of long distance locomotives in the Ukraine was as follows.